have been taken so far to assess the importance associated by the health care decision-makers to incorporate ethical principles into practice. The review serves as an initial basis for a survey to study US decision-makers' perspectives about the integration of evidence, economics and ethics in health care decision making.

PHP59
MARKET ACCESS LESSONS FROM EXISTING PRODUCT DEVELOPMENT PARTNERSHIPS (PDPS)
Ramadan F, Marinoni G, Ando G
IHS, London, UK
OBJECTIVES: To give an overview of recent PDPs between the pharmaceutical industry, the public sector, International Health Organizations (IHOs) and academia and draw best practices from two case studies, the Medicines for Malaria Venture (adaptive PDP) and the Malaria Vaccine Initiative (innovative PDP). **METHODS:** We surveyed the 'Health Partnerships Database' (HPD) to list PDPs to date. We searched for partnerships involving product development of drugs, vaccines and other pharmaceutical and diagnostics products. For the case studies, we analysed websites of the specific PDPs. **RESULTS:** The HPD lists 19 PDPs, which can be classified into two categories: adaptive PDPs, i.e. research and development (R&D) initiatives focused on tailoring existing products to developing countries' needs, and innovative PDPs, i.e. R&D initiatives focused on developing new products to address developing countries' diseases. Existing PDPs focus on R&D of drugs (8 PDPs), vaccines (7 PDPs) and preventive and diagnostic techniques (4 PDPs) for diseases such as tuberculosis (TB, 5 PDPs), malaria (6 PDPs), meningitis (1 PDP) and HIV/AIDS (6 PDPs). Meanwhile, recently developed PDPs are tailored as an access-to-market strategy for essential and neglected disease treatments in developing countries (4 PDPs). In-depth analysis of two PDPs showed that 1) assessment of specific health care needs in developing countries prior to partnership initiation; 2) local government engagement in partnerships; 3) sustainability of funding flow accompanied by national expertise building; and 4) monitoring, reporting and transparent sharing of results are crucial for the success of PDPs. **CONCLUSIONS:** Multinational pharmaceutical companies are increasingly dedicating part of their development pipeline to developing-country diseases and turning to IHOs as strategic partners to secure market knowledge and access in these countries. However, most collaborations still happen around the "big three" diseases, Malaria, HIV/AIDS and TB.

HEALTH CARE USE & POLICY STUDIES – Formulary Development

PHP60
FORECASTING THE HEALTH AND HEALTH SPENDING CONSEQUENCES OF VALUE-BASED DRUG INSURANCE DESIGN FOR INSUREDS WITH FIVE HIGH-COST CONDITIONS
Olchanski N[1], Milstein AS[2], Chambers JD[1], Neumann PJ[1]
[1]*Tufts Medical Center, Boston, MA, USA,* [2]*Stanford University School of Medicine, Stanford, CA, USA*
OBJECTIVES: The goal of value-based insurance design (VBID) is to set encourage use of high-value therapies and discourage use of low-value ones by appealing to evidence of value, rather than a drug's price, when tiering drugs and setting copayment levels. The aim of this study was to simulate the impact of an illustrative VBID approach on savings and health gains. **METHODS:** We used simulation to model an impact of a value-based formulary where drugs with less favorable cost-effectiveness (CE) had higher co-pays, and those with more favorable clinical effectiveness and CE were tiered with lower co-pays. Model inputs included drug utilization and cost data from the Medical Expenditure Panel Survey (MEPS) for 2008 and CE and health gain data from the published literature (Tufts CEA Registry). Estimates of behavioral effects of changing co-pay amounts on drug utilization were based on published literature. Modeled conditions included lipid disorders, hypertension, diabetes, esophageal disorders, and depression. In sensitivity analyses we ran the model using a large health plan's 2010 drug cost and utilization data. **RESULTS:** In the esophageal and lipid-lowering scenarios, the total annual prescription costs decreased (3-9%), in the hypertension scenario costs remained roughly the same, and in depression and diabetes costs increased slightly (2-4%). Total costs of care decreased in all but one scenario by 1-2%, and remained steady in the hypertension scenario. Health benefits also showed a positive impact across all scenarios, increasing total quality-adjusted life years gained by 118,000 to 254,000, about 1%. The results were similar in scenarios using health plan data. **CONCLUSIONS:** The simulation illustrates the importance of evolving from the prevalent sub-optimal practice of tiering therapies based largely on drug costs to tiering based on overall value.

PHP61
COST-SAVING MEASURES IN REIMBURSEMENT OF ORPHAN DRUGS UNDER MEDICARE PRESCRIPTION DRUG PLANS
Sepulveda B, Doyle JJ
Quintiles, Hawthorne, NY, USA
OBJECTIVES: The increase in premium-priced orphan drugs coupled with health care budget constraints will pressure managed care plans to consider restricting market access. Coverage and reimbursement of ten FDA-designated orphan drugs (alpha-glucosidase, bexarotene, bosentan, galsulfase, idursulfase, iloprost, laronidase, mecasermin, nitisinone, plerixafor) were analyzed for seven popular Medicare PDP (BCBS Rx, AARP Medicare Rx Preferred, Cigna Medicare Rx Plan One, Humana Enhanced, Aetna/CVS, EmblemHealth, UnitedHealthcare). **METHODS:** Formulary tier structure, monthly retail costs and utilization restrictions (UR)—pre-authorization (PA), quantity limits (QL) and step therapy (ST)—were obtained from CMS (www.medicare.gov). UR were assigned point values reflecting most to least restrictive—QL, 1; ST, 2; PA, 3; exclusion from formulary, 6. Each drug-plan combination can be assigned a maximum of 6 points. Disease prevalences were obtained from a variety of sources. **RESULTS:** Monthly retail prices ranged from $782.45 (laronidase) to $11,845.25 (mecasermin). Iloprost was most frequently excluded from formularies (2) and was subject to PA from the remaining five plans. The most frequently PA drug was mecasermin (6). There was slight negative correlation between price and prevalence of the disease for which the drugs were indicated (r^2=0.080). There was a slight positive correlation between price and the number of UR points (r^2= 0.046). There was virtually no correlation between UR points and disease prevalence (r^2=0.004). However, there is a moderate correlation between the number of plans that implement PA for a drug and that drug's price (r^2=0.322). **CONCLUSIONS:** With a wide range of drug prices, there is virtually no correlation between the number of UR points, drug price and disease prevalence. However, it is clear that PA is perceived to be the most effective cost-saving measure as it is used most for the more expensive drugs.

HEALTH CARE USE & POLICY STUDIES – Health Care Costs & Management

PHP62
IMPACT OF HEALTH, SOCIAL, LIFESTYLE, AND ECONOMIC FACTORS ON LIFE EXPECTANCY IN OECD COUNTRIES
Augustine JM, Skrepnek GH
The University of Arizona, Tucson, AZ, USA
OBJECTIVES: The purpose of the study was to assess the relationship of pharmaceutical expenditures (PE) and other social and economic factors on life expectancy for different age groups in Organisation for Economic Co-operation and Development (OECD) countries. **METHODS:** This retrospective study analyzed data from the OECD database on the association between life expectancy in 2010 and PE, social/lifestyle (tobacco, alcohol, fruits, vegetables, and sugar consumption), and economic (health care expenditures and gross domestic product (GDP)) factors from a sample of 27 developed countries. Data were pooled according to gender at 40, 60, and 65 years while controlling for the lag variables of alcohol and tobacco (lagged 20 years), food intake variables (7 years), and economic factors (12 years). All variables were transformed via logathrimic form to yield full elasticities. A bootstrapped random intercept regression model with sandwich estimators was conducted to determine which social and health factors were associated with a change in life expectancy. **RESULTS:** The mean life expectancy for males was 39.02±2.30 years for age 40, 21.44±1.65 years for age 60, and 17.58±1.39 years for age 65. The mean life expectancy for females was 43.22±2.09 years for age 40, 25.21±1.68 years for age 60, and 20.90±1.57 years for age 65. Results of the regression of life expectancy indicated significant associations (p≤0.05) of: male gender (coefficient=–0.146. CI: –0.157-0.135); age group of 60 years (–0.570, CI: –0.583-0.558); age group of 65 years (–0.763, CI: –0.777-0.750); calorie intake (–0.144, CI: –0.246-0.041); fruit and vegetable intake (0.06, CI:0.036-0.084); overall health care expenditures (–0.047, CI: –0.092-0.001); and GDP (0.252, CI:0.189-0.314). Pharmaceutical expenditures were not associated with change in life expectancy for any age group. **CONCLUSIONS:** Across 27 OCED countries, specific food intake, GDP, and health care expenditures were significantly associated with altering life expectancy. Increased PE was not significantly associated with life expectancy.

PHP63
HOMELESS PATIENTS USE OF URBAN EMERGENCY DEPARTMENTS IN THE UNITED STATES
Coe AB, Moczygemba LR, Harpe SE, Gatewood SBS
Virginia Commonwealth University, Richmond, VA, USA
OBJECTIVES: This study compares homeless patients' utilization of the urban emergency department (ED) in the United States (US) with non-homeless patients and examines the relationship between homelessness and frequency of ED use, arrival to the ED by ambulance, waiting time to be seen, length and type of ED visit. **METHODS:** The emergency department component of the 2009 National Hospital Ambulatory Care Survey database (NHAMCS-ED) was used for this cross-sectional, descriptive analysis. Patients were included if their patient residence was homeless or private residence and if they visited an urban ED. Descriptive statistics, bivariate analyses, and logistic regression were used to examine the relationship between demographics and ED use variables with homelessness. Nationally representative weights were applied to the estimates. **RESULTS:** The weighted sample size was 100,847,969 patient visits. A total of n=636,399 (0.63%) of the patients were homeless. The mean age of homeless patients was 44.0 years (95% CI: 41.7-46.3) compared to 34.7 years for non-homeless patients (95% CI: 33.5-35.9, p<0.0001). The majority of homeless patients were male (75.9%) versus only 44.9% of non-homeless patients (p<0.0001). More homeless patients arrived to the ED via ambulance (45.2 vs. 14.9%, p<0.0001). Homeless patients had a significantly different length of ED visit and number of ED visits in the past 12 months (both p=0.007) than non-homeless patients. Homeless patients were more likely to be older (OR=1.02, 95% CI: 1.003-1.040), male gender (OR=3.34, 95% CI: 1.191-9.349), arrive to the ED via ambulance (OR=7.56, 95% CI: 4.045-14.137), have a longer length of ED visit (OR=1.002, 95%CI: 1.001-1.003), and have a past visit to the ED in the last 12 months (OR=1.06, 95%CI: 1.033-1.080) than non-homeless patients. **CONCLUSIONS:** In 2009, homeless patients who visited US urban emergency departments were significantly different than non-homeless patients in their demographics, frequency, access, and pattern of ED use.

PHP64
EU PHARMACEUTICAL EXPENDITURE FORECAST